application in light of the foregoing amendment and the following remarks, pursuant to and consistent with 37 C.F.R. §1. 112 and §1.116 are respectfully requested.

Claims 5-8 are pending. Applicants have hereinabove amended Claims 5 and 6. Support for amended Claims 5 and 6 may be found generally through the specification and specifically on page 2, lines 17-23 and page 12, lines 7-25. Applicants respectfully submit that no new matter has been added. Accordingly, Applicants respectfully request the Examine to enter the Amendment.

Rejections under 35 U.S.C. §112

In the September 1, 1998 Office Action, the Examiner rejected Claims 5-8 under 35 U.S.C. §112, first paragraph as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make or use the invention.

In response, Applicants respectfully traverse the Examiner rejection of claims 5-8 under 35 U.S.C. §112, first paragraph, with regard to the deposit of SCH 94.03 and SCH 79.08. . Applicants have hereinabove amended the specification to recite the deposit details. Further, Applicants attach hereto as Exhibits A and B, copies of the ATCC deposit certificates. Applicants hereby state that the deposit has been accepted by an International Depository Authority under the provisions of the Budapest Treaty, that all restrictions upon public access to the deposit will be irrevocably removed upon the grant of a patent on this Application and that the deposit will be replaced if viable samples cannot be dispensed by the depository are required. Therefore, Applicants are in compliance with all the terms and conditions of the Budapest Treaty. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw the rejection of the Claims under 35 U.S.C. §112, first paragraph.

Applicants respectfully traverse the Examiner's rejection of Claims 5-8 under 35 U.S.C. §112, first paragraph with regard to antibodies O1 and O4. Applicants maintain that O1 and O4 were, at the time of filing the subject application, and continue to be, publically available. Applicants are in the process of gathering such evidence and will forward it to the Examiner.

In the September 1, 1998 Office Action, the Examiner rejected Claims 5-8 as lacking entitlement to the benefit of parent applications Serial NO's 08/236,520 or 08/692,084, and asserted that the Specification does not provide support for isolated or synthetic autoantibodies having the characteristics thereof for the reasons set forth below. The Examiner asserted that the evidence does not support isolated polyclonal antibodies such as autoantibodies or synthetic autoantibodies.

In response, Applicants respectfully traverse this rejection. Applicants maintain that the Specification provides an adequate written description to enable one skilled in the art to practice Applicants' invention (see Specification page 7, line 12 through to page 8, line 9 and page 11, lines 11 and 23). The Specification clearly provides one of skill in the art that "synthetic" autoantibody indicating an engineered or manipulated antibody or fragment thereof is in direct contrast to an "isolated" autoantibody or fragment thereof. Indeed as defined on page 11, line 6 of the Specification, natural or physiologic autoantibodies are present normally in serum. Thus, in contradistinction, "synthetic" autoantibodies, are those not normally present in serum. The Specification at pages 7-8 directs one of skill in the art to a series of references readily available to one of skill in the art, thereby teaching how to isolate the antibodies of the instant invention and how to generate the synthetic antibodies of the instant invention.

Further, the generation of polyclonal antibodies is generally a preliminary step in the production *of monoclonal* antibodies, the teaching of which the Examiner now admits is

enabled by the instant disclosure. More specifically, Applicants submit that the '629 Patent (column 7, line 59 through to column 8, line 8) teaches how to make and screen for such autoantibodies. Moreover, the issued patent well as the instant disclosure exemplify the generation of such autoantibodies using SJL/J mice. Applicant points out that both the issued patent and the instant Specification and incorporated references detail lists of both TMEV and EAE susceptible animal models. Because some animals are particularly susceptible to TMEV-induced demyelinative disease and others are demyelination refractive, it would be readily clear to one of skill in the art which animals to use in generating such autoantibodies. Therefore, the Specification provides an adequate written description to enable one skilled in the art to practice Applicants' invention. Accordingly, Applicants respectfully requests that the Examiner reconsider and withdraw the rejection under 35 U.S.C.§ 112, first paragraph.

In the September 1, 1998 Office Action, the Examiner rejected Claims 5-8 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated that claims 5-8 are unclear in the recitation of "characteristics thereof" because it is unclear from the claim that characteristics refer to proliferation. In response, Applicants have hereinabove amended the claims to recite "capable of stimulating the proliferation of glial cells in the central nervous system". Therefore, Claims 5-8 are definite and particularly point out and distinctly claim the subject matter which Applicants' regard as the invention. Accordingly, Applicants respectfully requests that the Examiner reconsider and withdraw the rejection under 35 U.S.C.§ 112, second paragraph.

Rejections under 35 USC §102

In the September 1, 1999 Office Action, the Examiner maintained the rejection of Claims 5-8 under 35 U.S.C. 102(a or b) as being anticipated by Miller et al (1996) for reasons made of record. The Examiner has maintained the rejection of Claims 5-8 under 35 U.S.C.

102(b) as being anticipated by Miller *et al* (1994) for reasons made of record. The Examiner has further maintained the rejection of Claims 5-8 under 35 U.S.C. 102(a or b) as being anticipated by Miller (1995) for reasons made of record.

In response, Applicants traverse the Examiner's rejection of Claims 5-8 under 35 U.S.C. §102 as being anticipated by any of Miller et al (1994), Miller (1995) or Miller et al (1996). Applicants maintain that each of the Miller et al references is not a proper reference and should be withdrawn.

Applicants maintain that the subject matter defined by the Claims is entitled to claim the benefit of U.S. Serial No. 08/236,520, filed April 29, 1994 (hereinafter the "'520 Application"), now U.S. Patent No. 5,591,629 (hereinafter the "'629 Patent"). The '520 Application provides an adequate written description of the subject matter now claimed in the instant invention. Claim 5, as now amended, recites a method of stimulating the proliferation of glial cells in the central nervous system in a mammal in need of such proliferation which comprises administering to said mammal an effective amount of a monoclonal autoantibody of the IgM subtype, or mixtures and/or active fragments thereof, and isolated or synthetic autoantibodies capable of stimulating the proliferation of glial cells in the central nervous system.

The '520 Application provides a written description for O4, (see Column 8, lines 15 - 35 of the '629 Patent); and isolated or synthetic autoantibodies which are polyreactive and encoded by unmutated germline genes (see Column 9, lines 4-28 of the '629 Patent). Also, in regard to O1, O4, A2B5, HNK-1, publications cited in the specification of the '629 Patent describe O1, O4, A2B5, HNK-1. For example, Bansal, R., et al., "Stimulation of Oligodendrocyte Differentiation in Culture by Growth in the Presence of a Monoclonal Antibody to Sulfated Glycolipid," J. Neuro. Res. 21: 260-267 (1988) which note in particular, O4 as oligodendrocyte and specifically cites Sommer and Schachner, "Monoclonal

antibodies (01 to 04) to oligodendrocyte cell surfaces: An immunocytological study in the central nervous system," Dev. Biol. 83: 311-327 (1981) and Schachner, "Cell type-specific surface antigens in the mammalian nervous system," J. Neurochem. 39:1-8 (1982), which describes four antibodies, designated 01, 02, 03, and 04 that react with the cell surfaces of oligodendroglia. These cited references are not included as exhibits attached hereto because they have already been submitted in connection with the instant application and were cited as part of the instant application.

Lastly, Applicants respectfully submit that the O1, O4 and HNK-1 antibodies represent antibodies recognizing characteristic and cell type defining oligodendrocyte surface marker antigens as described and detailed in the '629 Patent.

Thus, Applicants are entitled to the benefit of the April 24, 1996 filing date of the parent application. Therefore, Miller et al (1996), Miller et al (1995) and Miller et al (1994), each of which was published after April 29, 1994 is not available for prior art purposes under 35 U.S.C. §102. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the 35 U.S.C. §102 rejections of the claims.

SUMMARY

In view of the preceding Amendment and Remarks, Applicants contend that the subject matter defined by the claims is now in condition for allowance and earnestly solicit favorable action on all pending claims, namely Claims 1-4, 9 -14 and 19.

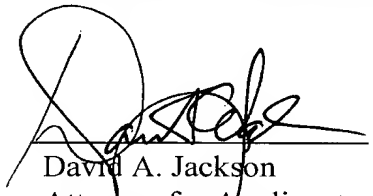
No fees are believed to be necessitated by the instant response. However, if any fee is required, authorization is hereby given to charge Deposit Account No. 11-1153 for any underpayment, or to credit any overpayments.

APPLICANTS: Moses Rodriguez, et al.
SERIAL NO. : 08/692,084
FILED : August 8, 1996

Early and favorable action on the claims is earnestly solicited.

Respectfully submitted,

KLAUBER & JACKSON



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